

Claims

1. An IC card adapter apparatus comprising:
 - a first communicating unit that reads information from an IC card in which card information and personal information are stored;
 - 5 a storage unit that previously stores the information;
 - a second communicating unit that communicates with a vehicle control device mounted on a vehicle; and
 - a control unit that collates the information read by the first communicating unit with the information stored in the storage unit, and allows
- 10 the second communicating unit to perform transmitting and receiving operations when a result of the collation indicates coincidence.

2. The IC card adapter apparatus according to claim 1, wherein the storage unit stores card information and personal information of a plurality of IC cards; and
15 wherein when the result of the collation indicates coincidence, the control unit obtains personal information of each of the IC cards.

3. The IC card adapter apparatus according to claim 1 or 2, further
20 comprising a slot and a guide that guides the IC card to be inserted into the slot; and
an insertion detecting switch that detects the insertion of the IC card into the slot.

- 25 4. The IC card adapter apparatus according to any one of claims 1 to 3,

wherein the first communicating unit and the second communicating unit conduct communication in different modes.

5. The IC card adapter apparatus according to any one of claims 1 to 4,
5 wherein at least one of a plurality of restriction information including a setting of entry unlocking of a vehicle, a setting of engine start unlocking, a setting of glove box unlocking, a setting of trunk unlocking, an available time of a vehicle, an available travel distance of a vehicle, and an available number of use of a vehicle is stored in at least one of a readable storage region of the IC card and
10 a readable region of the storage unit.

6. The IC card adapter apparatus according to any one of claims 1 to 5,
wherein at least one of a plurality of position setting information of a vehicle including a seat position of a vehicle, a steering wheel position, and a mirror
15 position is stored in at least one of a readable storage region of the IC card and a readable region of the storage unit.

7. The IC card adapter apparatus according to any one of claims 1 to 6,
further comprising an interrupting unit that interrupts access from an outside to
20 an IC card attached to the IC card adapter apparatus.

8. A vehicle control device comprising:
a communicating unit that communicates with the IC card adapter
apparatus according to any one of claims 1 to 7;
25 a storage unit that previously stores information of the IC card adapter

apparatus;

an interface unit that transmits and receives signals with respect to a plurality of control apparatuses mounted on a vehicle; and

a vehicle control unit that collates information of the IC card adapter

5 apparatus obtained by the communicating unit with the information of the IC card adapter apparatus stored in the storage unit, and allows the interface unit to perform transmitting and receiving operations when a result of the collation indicates coincidence.

10 9. The vehicle control device according to claim 8, wherein the controlled apparatus is an apparatus that controls at least one of an entry lock of a vehicle and an engine start lock.

10. The vehicle control device according to claim 8 or 9, wherein the 15 controlled apparatus is an apparatus that controls at least one of a glove box lock of a vehicle, a trunk lock, an available time of a vehicle, an available travel distance of a vehicle, and an available number of use of a vehicle.

11. The vehicle control device according to any one of claims 8 to 10, 20 wherein the vehicle control unit is an apparatus that controls at least one of a seat position of a vehicle, a steering wheel position, and a mirror position.